



Textures in Plaster

**Versatility, unlimited design potential,
plus durability.**

By J.R. “Dick” Gorman

While there are many building materials available to the architect and designer to use, none gives the versatility, unlimited design potential plus the durability, of plaster. Textures are a vehicle that the plaster industry has that no other building material can equal. A plethora of possible textures makes plaster one of the most versatile construction materials available. The aesthetic range textures offer the architect, designer, owner, is virtually unlimited. But as positive a feature of design as it is, textures in plaster can also be a disastrous pitfall if not fully understood and specified properly. One texture in the mind of an owner may be quite different from what the architect has envisioned and undoubtedly isn't what the plastering contractor bid. Plaster textures must be fully clarified in the bid process through proper wording in the specifications in order to avoid misunderstanding or rejection of work.

Textures in plaster can be either for interior use (gypsum plaster) or exterior use (Portland cement plaster-stucco). They can range from perfectly smooth surfaces, as with gypsum plaster, to rough, coarse finishes as with gypsum or Portland cement plaster. Smooth finishes are not recommended with portland cement plaster. Textures run the gamut from a light sand float finish using a number 20 sand, to heavy surfaces with one quarter to one-half inch using rocks, chips, or pebbles as decorative treatments. This is commonly called marblecrete. Textured plaster can, in remodel work to upgrade a wall, be applied over drywall on the interior with the proper use of bonding agents; on concrete block, or brick for both interior or exterior work or typically over a basecoat on metal lath or gypsum lath. Of course gypsum finishes

must be applied over gypsum bases and Portland cement finishes over Portland cement bases. Gypsum and Portland cement are not compatible products. A Keenes cement finish, for example, is a gypsum based material and is used only over gypsum bases. It can never be specified for exterior use or where moisture may be a problem on the inside.

When working with architects there are several important points which must be explained. While textures offer unlimited possibilities there are certain restraints which must be understood. The ability to add pigment to plaster textures is certainly a plus. This gives a wall that should never become a maintenance problem. However, dark colors can become a problem during application due to weather, job conditions, etc. I therefore recommend that integrally colored plaster is best done in whites, earth tones, pastels, etc. When extremely dark, exotic colors are used, paint is best for uniformity of color. Color in the finish plaster, even here, is recommended so that if the paint is damaged the plaster that is exposed will be at least the same hue. If for some reason during the application of a color coat there is a problem of color uniformity then the walls can be “fog” coated. Stucco manufacturers make a product which is sprayed, generally in a Hudson sprayer, over a color coat to give instant uniformity of color. It does nothing for texture but will give evenness in color desired.

Another problem which is encountered all the time is the requirement for smooth textures with Portland cement plaster. While possible with gypsum it is not possible with Portland cement and should be avoided.

Expansion joints should always be specified with Portland

cement plaster textures. It is usually recommended that they be placed 10 feet on center in both directions—panel sizes should not exceed 100 square feet in size and panel dimensions should never exceed a ratio in size of one to two (a two by ten foot panel while meeting the first two requirements would not be good design). When using expansion joints, good design would dictate that the paper always run continuous and the metal lath be cut. Engineers are, for design reasons, specifying more and more wood sheathing under plaster for shear values, etc. This is always a plus from a plasterers standpoint in that it gives a nice flat wall which provides uniformity in thickness, flatness, etc. for the finish. Major building codes now require that when plaster is applied with metal lath over plywood panels, two layers of grade “D” paper must be used. If not, moisture can effect the plywood causing movement and cracking in the plaster finishes.

Although many admixtures and ad-

ditives are used in plaster basecoats, seldom are they used in the texture material. The addition of fibers and or acrylics are excellent in basecoats and if used properly, perform well, providing a good base for the texture to resist cracking, crazing etc. There are many proprietary finishes available and

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performance varies widely by manufacturer. This, as with all products must be closely checked by the user. Generally these products claim workability hardness, waterproofing characteristics and color uniformity. They usually can be textured in the same manner as job mixes or mixes by stucco companies. Where movement or vibration is expected in the building over and above what a plaster texture should normally resist, an elastomeric coating may be used over the texture. Glazes and multi-step coatings can offer resistance to corrosive action, graffiti, etc. if necessary, and can be applied over plaster textures.

The pitfalls that many plastering contractors find themselves in relate to job conditions not under their control. When problems occur on a job, generally the only thing an owner sees is the plaster, thus the problem becomes the plasterers. Green or wet lumber is



Simulated Timber

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becoming more and more a problem the plasterer must deal with. If the framing is bad it will effect the flatness of the texture. If green, shrinkage, thus movement, will cause problems in the plaster texture. Adverse weather conditions can and usually do effect the performance of plaster textures. A colored plaster applied during damp foggy weather can result in a different color than if applied in a hot dry condition. Wide temperature, wind and humidity conditions in one day can play havoc with a plaster color.

It is important to pay close attention to the base coat or brown coat application. Many times, depending on the texture used the base or brown application is far more important than the actual finish procedure. Particularly with dash finishes and float finishes, imperfections, trowel lines, etc. will photograpy into the finish. The stringent safety requirements of scaffolding can cause problem with



“horizontal” scaffold lines in plaster. Extreme care must be taken that overlapping of textures at the scaffold planks doesn’t result in shadowing.

Once it occurs it is difficult, if not impossible, to resolve. It is becoming more and more a problem with dash and float texture.

It is extremely important to realize that there are many versions of a dash texture, from light to a tunnel dash. A sand float texture will vary not only by the size of sand used but can have swirls in it or be perfectly uniform. Lace textures can be heavy, medium, light, etc. Combed textures should of course, be severely restricted as to length of comb. It is virtually impossible to take a vertical comb from scaffold to scaffold—horizontal combs should also be restricted as to length.

As stated before, smooth textures in Portland cement plaster should never be specified. If used they must be painted or coated with an elastomeric material.

Textures in Plaster can enhance any building design. With minimum thickness, weight and cost, they can create dramatic effects required by any architect, building or owner. As with any building material, however, they must be specified properly.



Imagination

*Samples of textures are one of the most important tools our industry has. There are excellent brochures developed by the plastering industry. In particular the "Plaster Textures" pamphlet developed by the Plastering Information Bureau and the Information Bureau for Lath Plaster and Drywall in Southern California show 29 dif-

ferent textures which can be done either in gypsum plaster or Portland cement plaster. This brochure is a part of the Plaster and Lathing Systems Manual published by BNI Books, 3055 Overland Ave., Los Angeles, California in conjunction with McGraw-Hill Publishing Company. Several examples are shown with this article. Not only are pictures shown of textures but recommendations as to how they are done are included. Copies of the texture booklet are available through the Building News in Los Angeles or the Plastering Information Bureau, 3127 Los Feliz Blvd., Los Angeles, CA 90039. 

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